

REMARKS

In the Office Action, the Examiner issued a final rejection of Claims 1, 2, 4-7 and 9-36, which are all of the pending claims, under 35 U.S.C. 103 as being unpatentable over the prior art. Specifically, Claims 1, 2, 4-7 and 9-34 were rejected as being unpatentable over U.S. Patent 6,598,230 (Ballhorn) in view of U.S. Patent 6,054,987 (Richardson) and U.S. Patent 6,131,086 (Walker, et al.). Also, Claims 35 and 36 were rejected as being unpatentable over Ballhorn in view of Richardson and Walker, et al. and further in view of U.S. Patent 6,374,336 (Peters, et al.).

Applicants are submitting herewith a Request for Continued Examination (RCE) to continue the prosecution of this application.

This Amendment is being submitted to amend the independent Claims 1, 6, 11, 18, 25 and 29 to improve the form of the claims and to emphasize differences between the claims and the prior art.

Generally, Claims 1, 2, 4-7 and 9-36 patentably distinguish over the prior art because the prior art does not disclose or suggest the way in which the system administrator, of a video-on-demand service, configures a video data path to transmit a requested video program from a video server to the customer's video monitor, as described in the independent Claims 1, 6, 11, 18, 25 and 29.

Generally, the present invention relates to monitoring or representing aspects of video-on-demand services. In one aspect of the invention, a tree representation is used to provide multilevel information about the video-on-demand system. A display showing a tree having a plurality of nodes may be generated, and information about video-on-demand services is embedded in these nodes. The nodes may be embedded, for instance, with information about

the equipment used to provide the video-on-demand services, the users, or the video-on-demand programs themselves.

In this aspect of the invention, a system administrator of the video-on-demand system interacts with the nodes to configure and to monitor the connections between servers of the system and the customers. In particular, when one of the customers requests a video program, the system administrator interacts with the nodes of the display (i) to select one of the servers to provide that requested video program to that one of the customers and (ii) to assign to the one of the customers one or more of a multitude of video data channels to configure a data path between the selected one of the servers and the video monitor of said one of the customers. This configured data path is then used for transmitting the requested video program from the selected one of the servers to the video monitor of the one of the customers for viewing by the customer.

In addition, in this aspect of the invention, the display also shows video usage patterns of the users. The video-on-demand system administrator uses their usage pattern display to select commercials that are provided with the video program. For example, as discussed on Page 21 of the specification, the mix of commercials can be changed, based on the customer usage pattern display, to have more sports or less sports.

With another aspect of the present invention, a matrix is constructed from a pair of catalogs of elements of a video-on-demand system. Connection representations are formed for at least some of the cells of the matrix, and these connection representations may be used to represent a number of relationships. These connections may be used, for instance, to show relationships between users and presentations, or between the video-on-demand equipment.

In this second aspect of the invention, the system administrator interacts with the matrix cells to configure and to monitor the connections between the servers and customers of the system. For instance, when one of the customers requests a video program, the system administrator interacts with the cells of the matrix to select one of the servers to provide the requested video program to that one of the customers, and to assign to that customer one or more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers. This configured data path is then used for transmitting the requested video program from the selected one of the servers to the monitor of said one of the customers for viewing by that customer.

In this aspect of the invention, also, the system administer can select commercials that are provided with the video program based on a display of the video usage patterns of the users. Here too, for example, the mix of commercials might be changed, depending on that customer usage pattern, to show more sports or less sports.

The prior art of record fail to disclose or suggest the above-described way in which the system administrator interacts with the displayed tree nodes or with the matrix cells to identify and select one or more channels to configure a specified video data path from one of the servers to the video monitor of one of the customers for transmitting the requested video program from that server to that customer for viewing by the customer.

Ballhorn discloses a multimedia box network having of a data server and a plurality of multimedia boxes. The network also includes at least one management station connected to the data server and to at least one of the multimedia boxes. While Ballhorn indicates that the disclosed network can be used to transmit image data or video data, this reference is primarily

directed to distributing music to juke boxes.

Richardson describes a procedure for dynamically configuring group view information. This configurable information may include the name of the group view, a background image and the context. Also, as shown in Figure 6 of Richardson, a graphical image can be used to change values for various attributes, such as the background graphic and context of one or more printers.

Walker discloses a system that allows television viewers to buy products shown on television programs. In this system, a central controller 110 receives product data and entertainment program data from remote terminals 150 and stores this data in a memory. Also, viewer interface 120 transmits a product request to a corresponding interactive voice response Unit (IVRU) 130 and operator terminal 140, each of which may be located in a call service center.

The product request describes a particular product of interest to the viewer, and an operator at operator terminal 140 then transmits program description data corresponding to the request to central controller 110. This controller, after accessing the product and program data stored in its memory, transmits product identification data back to operator terminal 140, and this data are provided to viewer interface 120. If the viewer decides to purchase a product, controller 110 then transmits product order data to vendor facility 160, and this facility routes the purchased product to the viewer.

There is a very important difference between the product distribution procedure shown in Walker, et al and the distribution procedure of the present invention. The Walker, et al. system is used to sell products that are shown in a television program, not the television programs themselves. In the present invention, in contrast, the television programs

themselves are sent to the viewers.

Independent Claims 1, 6, 11, 18, 25 and 29 clearly describe this difference between the present invention and the prior art.

Specifically, Claims 1, 6, 11 and 29 describe the feature that the system administrator interacts with the nodes of the tree display, when one of the customers requests a video program, (i) to select one of the servers to provide the requested video program to that one of the customers and (ii) to assign to the one of the customers one or more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers, where this channel is then used for transmitting the requested video program from the selected one of the servers to the video monitor of said one of the customers for viewing by that customer.

In addition, Claims 18 and 25 indicate that, when one of the customers requests a video program, the system administrator interacts with the matrix module or the matrix cells (i) to select one of the servers to provide the requested video program to that one of the customers and (ii) to assign to the one of the customers one or more of a multitude of video data channels to configure a video data path between the selected one of the servers and the video monitor of said one of the customers, where this channel is then used for transmitting the requested video program from the selected one of the servers to the video monitor of said one of the customers for viewing by that customer.

The other references of record have been reviewed, and these other references, whether considered individually or in combination, also do not disclose or suggest this feature of the present invention.

For example, Peters, et al. describes a procedure for transferring multiple high bandwidth streams of data between multiple storage units. The Examiner cited Peters, et al. for its disclosure of storing different catalogs in different storage units. There is no disclosure or suggestion in Peters, et al., though, of enabling the administrator of a video-on-demand system to configure and to monitor customer connections by interacting with displayed tree nodes or matrix cells.

Because of the above-discussed differences between Claims 1, 6, 11, 18, 25 and 29 and the prior art, and because of the advantages associated with those differences, these Claims 1, 6, 11, 18, 25 and 29 patentably distinguish over the prior art and are allowable. Claims 2, 4, 5 and 34 are dependent from Claim 1 and are allowable therewith; Claims 7, 9 and 10 are dependent from Claim 6 and are allowable therewith; and Claims 12-16 are dependent from, and are allowable with, Claim 11. In addition, Claims 19-23, 35 and 36 are dependent from, and are allowable with, Claim 18; Claims 26-28 are dependent from Claim 25 and are allowable therewith; and Claim 30 is dependent from, and is allowable with, Claim 29. Also, Claims 17, 24 and 31 incorporate by reference, and are allowable with, Claims 1, 18 and 30 respectively. Claims 31-33 are dependent from Claim 30 and are allowable therewith.

The Examiner is thus respectfully requested to reconsider and to withdraw the rejection of Claims 1, 2, 4-7 and 9-36 under 35 U.S.C. §103, and to allow these claims.

If the Examiner believes that a telephone conference with Applicants' Attorneys would be advantageous to the disposition of this case, the Examiner is asked to telephone the undersigned.

Respectfully submitted,

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